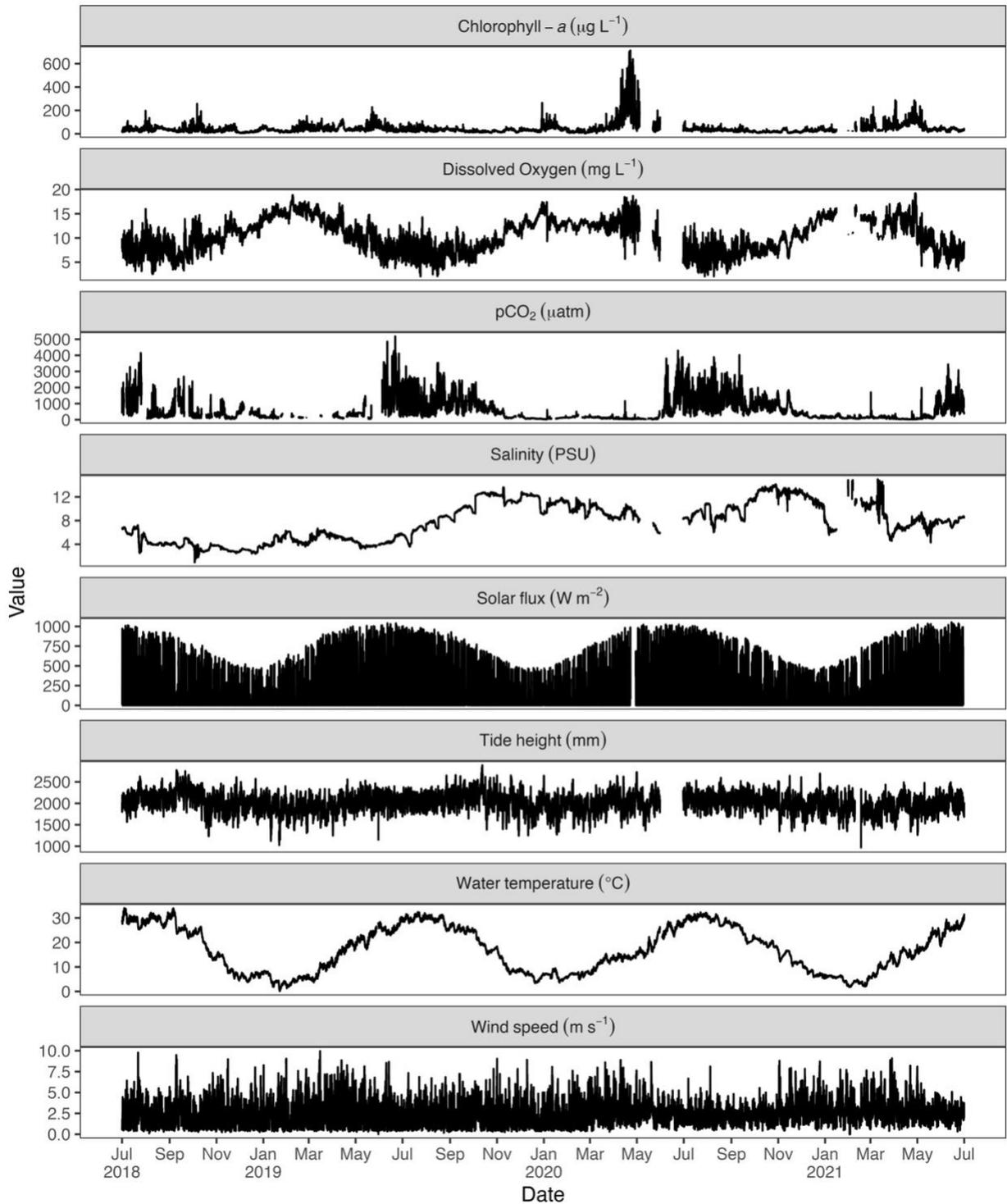
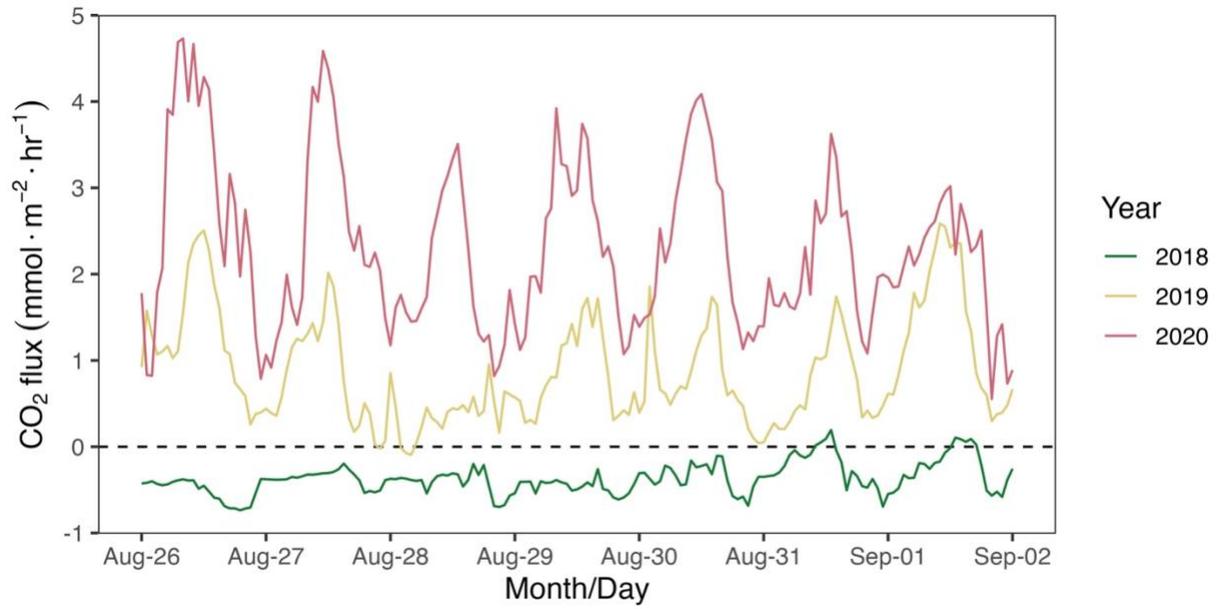


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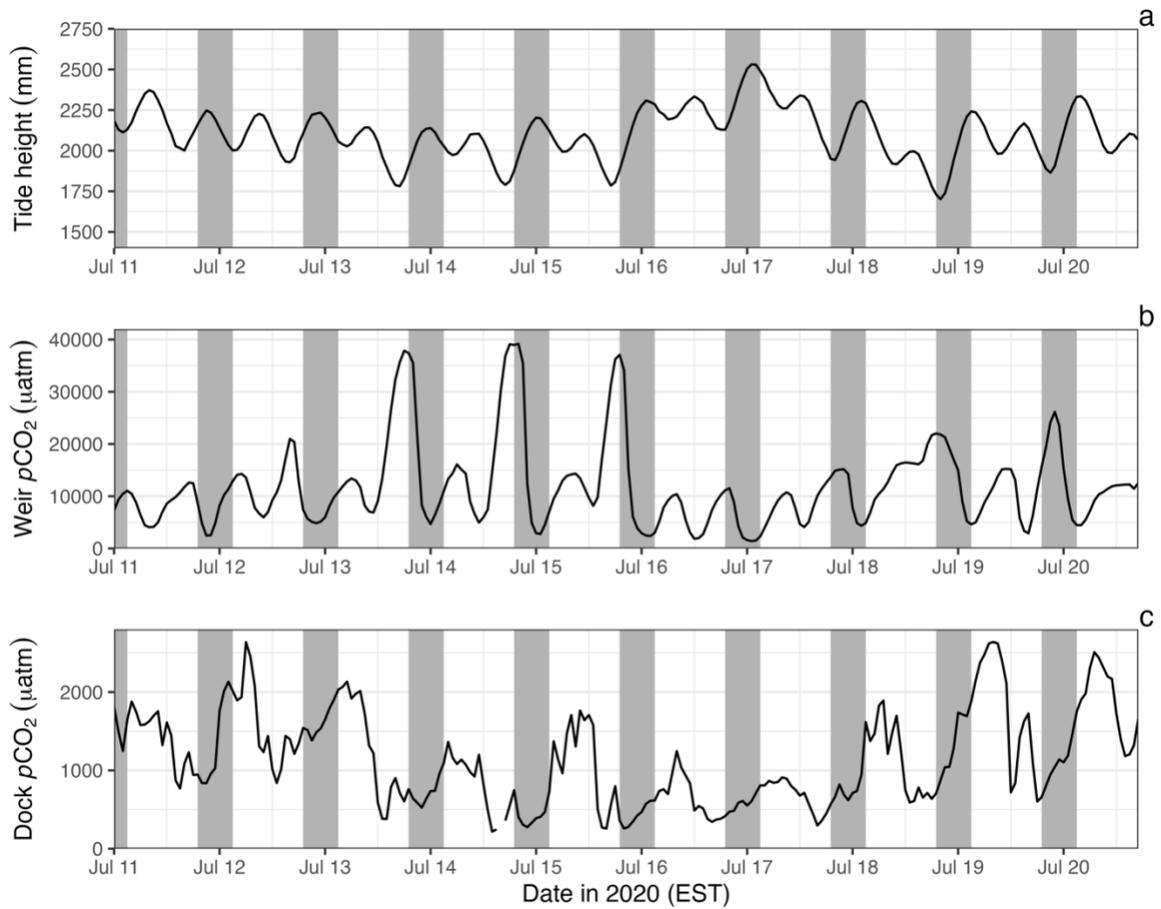


3
4 **Fig. S1.** Plot of all raw values from environmental variables for the same time period as CO₂ flux
5 (July 2018–July 2021).
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Fig. S2. Hourly CO₂ flux estimates for the week of August 26 to Sept 2 where CO₂ flux status differs among years.



11
 12 **Fig. S3.** Simultaneous $p\text{CO}_2$ measurements (1-hour intervals) from SERC dock (panel c) and the
 13 mouth of the single tidal creek that drains the Kirkpatrick Marsh (panel b) (11-20 Jul 2020)
 14 indicate that dissolved CO_2 varies at the dock according to a day/night cycle while CO_2 in the
 15 marsh tidal creek rises and falls inversely with tide height (panel a), indicating outwelling of
 16 marsh derived CO_2 (e.g., root respiration, pore and groundwater).